Title (en)

DIRECT SMELTING PROCESS

Title (de)

DIREKTSCHMELZUNGSVERFAHREN

Title (fr)

PROCÉDÉ DE FUSION DIRECTE

Publication

EP 2673387 B1 20191106 (EN)

Application

EP 12744399 A 20120209

Priority

- AU 2011900420 A 20110209
- AU 2012000125 W 20120209

Abstract (en)

[origin: WO2012106769A1] A molten bath-based process for direct smelting metalliferous material and producing molten metal in a direct smelting vessel that contains a molten bath that has a metal layer that is at least 900 mm deep. The process includes selecting operating parameters of the process so that feed material (solid material and carrier gas) is injected from above the metal layer into the metal layer via at least one solids injection lance with sufficient momentum to penetrate to a depth of at least 100 mm below a nominal quiescent surface of the metal layer to cause upward movement of molten material and gas from the metal layer.

IPC 8 full level

C21B 13/00 (2006.01); **C21C 5/56** (2006.01); **C21C 7/00** (2006.01); **C22B 5/00** (2006.01); **F27B 3/02** (2006.01); **F27B 3/22** (2006.01); **F27D 3/18** (2006.01)

CPC (source: EP KR US)

C21B 13/00 (2013.01 - KR); **C21B 13/0006** (2013.01 - US); **C21B 13/0013** (2013.01 - EP US); **C21B 13/0026** (2013.01 - US); **C21C 5/56** (2013.01 - EP US); **C21C 7/0037** (2013.01 - EP US); **C22B 5/00** (2013.01 - US); **F27B 3/02** (2013.01 - EP US); **F27B 3/225** (2013.01 - EP US); **F27D 3/18** (2013.01 - EP KR US); Y02P 10/134 (2015.11 - EP US)

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